

## ABSTRACT OF THE DISCLOSURE

An apparatus for and a method of coding the bit-planes of an array of numbers. The values in the array of numbers are converted to binary. The binary values are truncated to a predetermined level of accuracy. The number of bit-planes is determined based on the largest absolute value. A tree structured description of the array is generated based on a modified quad-tree coding technique. An SNR (signal to noise ratio) scalable encoding of the significance information for each bit-plane is generated by describing new branches and leaves of the tree corresponding to each bit-plane in a bottom-up-depth-first manner. An encoding of refinement information for each bit-plane is generated. A SNR scalable description of the array is generated by concatenating the encoding of the significance information and the refinement information generated for each bit-plane.